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Checklist of *Jasminum* species (Oleaceae) in Malesia

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Summary. An annotated checklist of *Jasminum* species in Malesia is provided. Fifty two species are enumerated, although ninety nine names have previously been applied to jasmines in the region.

Ninety nine names have been applied to jasmines indigenous to Malesia of which 52 are valid names of species and the rest are synonyms. Most of the synonyms (29 names) belong to the widespread and extremely variable *Jasminum aemulum*.

Table 1. Percentage endemism of Malesian jasmines.

Borneo	67
The Philippines	61
New Guinea	55
Peninsular Malaysia	43
Moluccas	40
Java	38
Sumatra	36
Sulawesi	25
Lesser Sunda Islands	0

The highest diversity in terms of number of species is centred on Sundaland where Peninsular Malaysia, the Philippines, Borneo and Sumatra each have more than ten species (Fig. 1). On an island basis, the highest percentage endemism is seen in Borneo and the Philippines followed by New Guinea (Table 1). Peninsular Malaysia also has a

significant number of endemic species (Fig. 1) but this is masked by the greater proportion of non-endemic species, most of which are also found in S. Thailand. For the Malesian region as a whole, endemism is high (77 %).

Fig. 1. The genus *Jasminum* in Malesia. The figures above the hyphen indicate the number of endemic species, those below indicate the total number of species.

Of the widespread species only *J. aemulum* has an extensive range to both the north and south of Malesia. Three other species range beyond the southern boundary of Malesia compared with eight species with ranges extending north of Malesia. Of the species with a southern range, one *J. turneri* is basically a Malesian species with an extension of range into Queensland, while the other two, *J. didymum* and *J. simplicifolium*, are Pacific species that have spread into Malesia but not penetrated the rain forest heartland.

Of the eight species crossing the northern boundary of Malesia, two *J. decussatum* and *J. scortechinii* are northern species with ranges that extend into Peninsular Malaysia and Sumatra, the majority have their distribution centred on Malesia (*J. insigne*, *J. maingayi*, *J. rambayense* and *J. smilacifolium*) and two, *J. cordatum* and *J. insularum*, are limestone species with ranges that straddle the political Thai-Malaysian border.

The checklist

aculeatum (Blanco) Walp. ex Hassk. = *J. simplicifolium*

acuminatissimum Blume = *J. aemulum*

adenophyllum auct King, *non* Wall. = *J. malayanum*

1. **aemulum** R. Br., Prodr. Fl. Nov. Holl. (1810) 521.
   (for full synonomy for the Malesian region, see R. Kiew, Malayan Nature Journal 47 (1994) 312–314).
   Type: *R. Brown* 2842 Australia (lectotype BM; isotype K).
   Distribution: Throughout Malesia. Burma, Thailand and Australia.

affine Blume *non* R. Wight = *J. aemulum*

2. **ambiguum** Blume, Mus. Bot. Lugd.-Bat. 7 (1850) 278.
   Type: *Blume*, Herb. Lugd. Bat. 908.158–410 (lectotype L).
   Distribution: Endemic to Malesia—Sumatra and Mentawai Is.

amboinense Merr. = *J. zippelianum*

3. **amoenum** Blume, Mus. Bot. Lugd.-Bat. 7 (1850) 270.
   Type: *Korthals, s.n.* Sakoembang (holotype L)
   Distribution: Endemic to Malesia—Borneo (Kalimantan) and Sulawesi.

4. **apoense** Elmer, Leafl. Philip. Bot. 8 (1915) 2791.
   Type: *Elmer* 11953 (lectotype L; isotype BM).
   Distribution: Endemic to Malesia—Philippines (Mindanao).

arenarium Ridl. = *J. aemulum*

5. **batanensis** Kiew, Sandakania 4 (1994) 75.
   Type: *H.H.Bartlett* 15387 (holotype PNH; isotypes A, MICH).
   Distribution: Endemic to Malesia—N. Philippines (Ibuhos and Itbayat Is.).

bifarium Wall. ex G. Don = *J. aemulum*

blancoi Hassk. Flora 47 (1864) 49 (Philippines) = *J. sambac* (L.) W. Ait. (cultivated).

bracteatum Roxb. = *J. aemulum*

6. carinata Blume, Mus. Bot. Lugd.-Bat. 7 (1850) 278.
Type: *Forsten, s.n.,* 1860, G. Tondano (holotype L).
Distribution: Endemic to Malesia—Sulawesi (rare).

7. celebicum Merr., Philip. J. Sci. 11 (1916) 305.
Type: *Robinson* 2450 (not located).
Distribution: Endemic to Malesia—Sulawesi.

8. cordatum Ridl., Kew Bull. (1926) 473.
Type: *Mills & Henderson* 15064 (lectotype SING).
Distribution: Malesia—Peninsular Malaysia (confined to limestone hills on the west coast). S. Thailand.

9. crassifolium Blume, Bijdr. (1825) 679.
Type: *Blume* 222 (lectotype L; isotype A).
Distribution: Endemic to Malesia—Borneo (common), Java, Philippines (Luzon, Bohol, Mindanao and Palawan); occasional in N Sulawesi and Sumatra (Lampong).
syn. nov.: *J. rotundifolium* Elmer, Leafl. Philip. Bot. 8 (1915) 2792.
Type: *Elmer* 10571 Philippines—Mt. Apo, Mindanao (A, BM, CAL, E, K, L).
syn. nov.: *J. suberosum* Holtius, Blumea 5 (1942) 229.
Type: *Lam* 3140 Talaud Is. (lectotype K).
syn. nov.: *J. triplinervum* Merr., Philip. J. Sci. Bot. 5 (1910) 223.
Type: *Meyer & Foxworthy* For. Bur. 13557 (1909) (not located)—Philippines, Faraon, Negros.

crassum Merr. = *J. smilacifolium*

10. cumingii Merr., Philip. J. Sci. Bot. 5 (1910) 223.
Type: *Cuming* 1565 (lectotype K; isotype A, BM).
Distribution: Endemic to Malesia—Philippines (Sibuyan and Bohol Is.).

curtilobum S. Moore = *J. rambayense*

11. curtisii King & Gamble, J. As. Soc. Beng. Extra No. 74 (1905) 259.
Type: *Curtis, s.n.* 1895, Ipoh, Perak (lectotype SING).
Distribution: Endemic to Malesia—Peninsular Malaysia.

12. decussatum Wall. Cat. 2860 in King & Gamble, J. A. Soc. Beng. Extra No. 74 (1905) 260.
Type: *Wallich* Cat. 2860 Sheet II, Caves at Kegum, Burma (lectotype K).
Distribution: Malesia—N. Sumatra and N. Peninsular Malaysia (Kedah). Burma and Thailand.

13. didymum Forster *f.*, Fl. Ins. Austr. Prodr. (1786) 3.
Type: *Forster, s.n.* Society Is. (lectotype BM, isotype K).

subsp. ***didymum***
Distibution: Malesia—Philippines (Palawan), Sulawesi, Moluccas, E. Java, Madura, Lesser Sunda Is., New Guinea (Milne Bay and C. District), W. New Britain, Australia, New Caledonia, Fiji, Solomon Is., Niue and Lord Howe Is.
syn.: *J. parviflorum* Decne., in Nouv. Ann. Mus. Hist. Nat. 3 (1834) 405, Herb. Timor Descr. (1835) 77.
Type: *Decaisne s.n.* Timor 1836 (holotype P; isotype K).
syn.: *rupestre* Blume, Mus. Bot. Lugd.-Bat. 1 (1850) 280.
Type: *Zippelius,* Herb. Lugd. Bat. 908.158...850 New Guinea (holotype L).
syn.: *rupestre* var. *contractum* Blume, Mus. Bot. Lugd. Bat. 2 (1850) 280.
Type: *Zippelius,* Herb. Lugd. Bat. 908.158...852 (holotype L).
syn. nov.: *J. triphyllum* Merr., Philip. J. Sci. 1 (1906) Suppl. 223.
Type: *Bermejos* 261, Puerto Princesa, Palawan (lectotype K, isotype CAL).

subsp. ***racemosum*** (F. Muell.) P.S. Green, Allertonia 3 (1984) 411.
syn.: *J. racemosum* F. Muell. Fragm. 1 (1858) 19.
Type: *Hill & Mueller, s.n.* Queensland (holotype K).
Distribution: Malesia—Papua New Guinea (Port Moresby region), Australia.

distichum Blume = *J. aemulum*

14. dolichopetalum Merr. & Rolfe, Philip. J. Sci. Bot. 3 (1908) 120.
Type: *Wenzel* 965 (lectotype A).
Distribution: Endemic to Malesia—Philippines (Luzon, Samar, Leyte).

15. domatiigerum Lingelsh., Bot. Jahr. 61 (1927) 21.
Type: *Schlechter* 18058 (lectotype L; isotypes A, BM, K).
Distribution: Endemic to Malesia—New Guinea (common in mountains at 1500–3000 m).

elongatum Blume = *J. aemulum*

ensatum Blume = *J. aemulum*

evansii Ridl. = *J. aemulum*

forstenii Blume = *J. aemulum*

fraternum Miq.= *J. aemulum*

fulvum Blume = *J. aemulum*

funale Decne. = *J. simplicifolium* subsp. *funale*

16. furcatum Blume, Mus. Bot. Lugd.-Bat. 1 (1850) 279.
Type: *Blume, s.n.* Herb. Ludg. Bat. 908.158...163 (lectotype L).
Distribution: Endemic to Malesia—Java (rare).
Notes: Backer and Bakhuizen in Flora of Java 2 (1965) 217 suggest *J. furcatum* is conspecific with *J. funale*. These two species are distinct and are at once distinguished by their venation (*J. furcatum* has almost triplinerved leaves while those of *J. funale* have pinnate venation).

gibbsiae Ridl. = *J. aemulum*

17. gilgianum K.Schum. in K.Schum. & K.Lauterb., Fl. Schutzgeb. Sudsee 2 (1901) 496.
Type: *Schlechter* 17929 (lectotype L; isotypes BM, BRI, K, LAE).
Distribution: Endemic to Malesia—New Guinea (Madang and Morobe) and New Ireland.
Notes: Schumann included both unifoliolate and trifoliolate plants in his original description of *J. gilgianum*. Lingelsheim (1927) separated the unifoliolate plants into a new species, *J. schumannii*, and restricted *J. gilgianum* to trifoliolate plants.

glabrum sensu Blume *non* Willd. ex Link. = *J. aemulum*

glabriusculum Blume = *J. aemulum*

gracillimum Hook.*f.* = *J. multiflorum* (Burm.*f.*) Andr. (cultivated).
Gard. Chron. 1 (1881) 9; Curtis's Bot. Mag. 37 (1881) t. 6559.
Type: *Burbidge Hort. Veitch, s.n.* 16 Dec 1880 (holotype K). N. Borneo.

18. griffithii C.B.Clarke in Hook.*f.*, Fl. Brit. Ind. 3 (1882) 593.
Type: *Griffith* 3704 (holotype K).
Distribution: Endemic to Malesia—Peninsular Malaysia.
syn.: var. *cuspidata* King & Gamble, J. As. Soc. Beng. Extra No. 74 (1905) 257.
Type: *Curtis* 2787 (SING).

19. hasseltianum Blume, Mus. Bot.-Lugd. Bat. 1 (1850) 278.
Type: *Blume, s.n.*, Herb. Lugd. Bat. 908.158...550 Gedeh, Java (lectotype L).
Distribution: Endemic to Malesia—Java (rare).

heteropleurum Blume = *J. aemulum*

horsfieldii Miq. = *J. aemulum*

20. insigne Blume, Mus. Bot. Lugd.-Bat. 1 (1850) 278.
Type: *Doetoe, s.n.,* Herb. Lugd. Bat. 908.161...85 Sumatra (lectotype L).
Distribution: Malesia—Sumatra and Peninsular Malaysia. S. Thailand.

var. ***insigne***
syn.: var. *teysmannii* Miq., Fl. Ind. Bat. 2 (1856) 541.
Type: *Teysmann* HB 960 W. Sumatra (lectotype L).

var. ***sublanceolata*** Miq., Fl. Ind. Bat. 2 (1856) 541.
Type: *Diepenhorst Priaman* HB 961 (lectotype L; isotype CAL).
Distribution: Sumatra only.

21. insularum Kerr, Kew Bull. (1938) 28.
Type: *Haniff & Nur* 3605 Pulau Tebun, S. Thailand (lectotype SING).
Distribution: Malesia—Peninsular Malaysia (extremely rare and confined to limestone in Langkawi and Kelantan). S. Thailand.

22. ixoroides Elmer, Leafl. Philip. Bot. 2 (1908) 511.
Type: *Elmer* 8731 Baguio, Luzon (lectotype E; isotype CAL).
Distribution: Endemic to Malesia—Philippines.

23. kedahense Ridl., J. Fed. Mal. St. Mus. 7 (1916) 46.
Type: *Robinson & Kloss* 5981 (holotype K; isotype SING).
Distribution: Endemic to Malesia—Peninsular Malaysia (Kedah Peak).
syn.: *maingayi* var. *kedahensis* King & Gamble, J. As. Soc. Beng. Extra No. 74 (1905) 258.
Type: *Ridley* 5535 (SING).

24. kostermansii Kiew, Sandakania 4 (1994) 76.
Type: *Fidilis & Sumbing* SAN 88453 Tawau, Sabah (holotype SAN).
Distribution: Endemic to Malesia—Borneo (Brunei, E. Kalimantan and Sabah).

lancifolium Decne. = *J. aemulum*

ligustrinum Blume = *J. aemulum*

25. longipetalum King & Gamble, J. As. Soc. Beng. Extra No. 74 (1905) 262.
Type: *King's Coll.* 6005 (lectotype CAL; isotype BO, K, SING).
Distribution: Endemic to Malesia—Peninsular Malaysia (W. coast, rare).

luzoniense Vidal = *J. populifolium*

26. macrocarpum Merr., Philip. J. Sci. Bot. 3 (1908) 258.
Type: *Merrill* 2326 Tanay, Luzon (lectotype K; isotype US).
Distribution: Endemic to Malesia—occasional in Borneo (Sabah), Philippines (Luzon and Polillo Is.) and S. Sulawesi.

27. magnificum Lingelsh., Bot. Jahrb. 61 (1927) 21.
Type: *Schlechter* 16568 (lectotype L; isotypes A, E, K).
Distribution: Endemic to Malesia—New Guinea (Madang).

28. maingayi C.B.Clarke, in Hook.f. Fl. Brit. India. 3 (1882) 594.
Type: *Maingay* 1000 (holotype K; isotype CAL).
Distribution: Malesia—Peninsular Malaysia. S. Thailand.

maingayi var. *kedahensis* King & Gamble= *J. kedahense*

29. malayanum Kiew, Sandakania 4 (1994) 77.
Type: *King's Coll.* 1736 Penang (holotype SING; isotype CAL).
Distribution: Endemic to Malesia—NE. Peninsular Malaysia.
syn.: *J. adenophyllum auct.*, King, J. As. Soc. Beng. Extra No. 74 (1905) 261 *non* Wall. Cat. 2876 in DC, Prod. 8 (1844) 314.

30. melastomifolium Ridl., Kew Bull. (1934) 122.
Type: *M. Fraser* 225 Banuey Is. (holotype K).
Distribution: Endemic to Malesia—Borneo (Brunei, Kalimantan and Sabah).

mixtinervium Blume = *J. aemulum*

multiflorum sensu Bakhuizen *f. non* (Burm.*f.*) Andr. = *J. aemulum*

31. multinervosum Kiew, Sandakania 4 (1994) 78.
Type: *P. Chai* S.33917 (holotype SAR; isotypes K, KEP, L).
Distribution: Endemic to Malesia—Borneo (Sarawak).

32. multipetalum Merr., Papers Mich. Acad. Sci. 19 (1934) 187.
Type: *Rahmat Si Toroes* 371 (lectotype MICH; isotypes A, SING).
Distribution: Endemic to Malesia—E. Sumatra (known only from the type).
Note: In error Kiew, Malayan Nature Journal 47 (1994) 317 refers to Bakhuizen's forms of *J. multiflorum* as forms of *J. multipetalum*.

nummularioides Blume = *J. aemulum*

33. oliganthum Quis. & Merr., Philip. J. Sci. 37 (1928) 187.
Type: *Ramos & Edano,* Bur. Sci. 45541 (lectotype K; isotypes BM, SING).
Distribution: Endemic to Malesia—Philippines (Luzon).

34. oreophilum Kiew, Sandakania 4 (1994) 79.
Type: *Ilias Paie* S.26324 (holotype SAR; isotype K, L, SING).
Distribution: Endemic to Malesia—Borneo (E. Sarawak, Sabah and E. Kalimantan).

35. papuasicum Lingelsh., Bot. Jahrb. 61 (1927) 19.
Type: *Schlechter* 19434 (lectotype L; isotypes BM, K, LAE).
Distribution: Endemic to Malesia—New Guinea (Morobe, Milne Bay, C & W Districts, Manus Is.).
syn.: *J. roseo-album* Lingelsh., Bot. Jahrb. 61 (1927) 19.
Type: *Ledermann* 9625 (lost in fire at B; duplicates not found).
Notes: Green in Allertonia 3 (1984) 423 suggests that *J. papuasicum* Lingelsh. (which he refers to as *J. papuanum*) may be conspecific with *J. simplicifolium*, which has a calyx with minute teeth. *J. papuasicum* is, however, clearly distinct by its 3–8 mm long calyx lobes as well as its flowers, which are ruby-purple outside.

parviflorum Decne. = *J. didymum*

36. paucinervium Ridl., J. Fed. Mus. St. Mus. 8 (1917) 61.
Type: *Robinson & Kloss, s.n.*, 1914 (holotype BM).
Distribution: Endemic to Malesia—Sumatra (rare).

pedale Blume = *J. aemulum*

37. pellucidum Airy Shaw, Hook. Ic. Pl. 33 (1935) t. 3282.
Type: *Richards* 1385 (holotype K; isotypes A, L, SING).
Distribution: Endemic to Malesia—Borneo (Sarawak, Sabah and Kalimantan).

pendulum Blume = *J. aemulum*

38. populifolium Blume, Mus. Bot. Lugd.-Bat. 1 (1850) 276.
Type: *Herb. Delersert, s.n.*, Manila (holotype L).
Distribution: Endemic to Malesia—Philippines (common in Luzon; also in Guimaras Is., E Negros and Panay Is., Mindanao and Mindoro).
syn.: *J. luzoniense* Vidal Phan. Cuming Philip. (1885) 185.
Type: *Cuming* 1029 Luzon (lectotype L; isotypes A, BM, K).

pseudoanastomosans Lingelsh. = *J. turneri*

39. pseudopinnatum Merr. & Rolfe, Philip. J. Sci. Bot. 3 (1908) 119.
Type: *Ramos* Bur.Sci.1111 Rizal, Luzon (lectotype PNH; isotypes CAL, GH).
Distribution: Endemic to Malesia—Philippines (Luzon).

pubescens sensu Backer *non* Willd. = *J. aemulum*

pubescens var. *bracteata* (Roxb.) C.B.Clarke = *J. aemulum*

quinquenervium Blume = *J. aemulum*

40. rambayense O. Kuntze, Rev. Gen. (1891) 410.
Type: *O. Kuntze, s.n.*, Rambai, Java (holotype NY).
Distribution: Malesia—rare in Sumatra and Java. S. Thailand.
syn.: *curtilobum* S. Moore, J. Bot. 63 (Suppl.) (1925) 66.
Type: *Forbes* 1532A, G. Trang, Sumatra (holotype BM; isotype L).

roseo-album Lingelsh. = *J. papuasicum*

rotundifolium Elmer = *J. crassifolium*

rupestre Blume = *J. didymum*

41. sarawakensis King & Gamble, J. As. Soc. Beng. Extra No. 74 (1905) 264.
Type: *Haviland & Hose* 3489 (lectotype L; isotypes BM, K).
Distribution: Endemic to Malesia—Borneo (very rare, Kuching, Sarawak).

42. schumannii Lingelsh., Bot. Jahrb. 61 (1927) 18. *J. gilgianum* K. Schum. *ex parte*.
Type: *Schlechter* 17754 (lectotype K).
Distribution: Endemic to Malesia—Papua New Guinea, E. and W. New Britain.

43. scortechinii King & Gamble, J. As. Soc. Beng. Extra No. 74 (1905) 264.
Type: *Scortechini* 479 (holotype CAL; isotype SING).
Distribution: Malesia—Peninsular Malaysia (common in mountains) and Sumatra (rare). Thailand.

44. simplicifolium Forst.f., Fl. Ins. Austr. Prodr. (1786) 3.
Type: *Forster, s.n.* 'Amicorum Insulare' (Tonga) (isotype K).
Notes: Among Malesian jasmines, *J. simplicifolium* is a distinctive species in possessing small, ovate, glabrous leaves, a calyx tube with minute, blunt teeth and small flowers on long slender pedicels with the corolla tube scarcely longer than the lobes. Subspecies *simplicifolium* according to Green (1984) occurs only in Fiji and Tonga and it differs from subsp. *australiense* in its longer leaves, longer calyx lobes and larger flowers.

Within Malesia two distinct subspecies can be recognised: subsp. *funale*, with a population extending from Java to Timor, and subsp. *australiense*, which appears to have invaded Malesia from Australia in the south where

it just penetrates into Papua New Guinea (and where it was previously known as *J. volubile*), and from the northeast, where it is common in the Philippines (and where it was known as *J. aculeatum*) and from where it extends south through Sulawesi to Buru. The many-flowered inflorescences (with 11 to more than 40 flowers) are characteristic of subsp. *australiense*. In the Philippines, flower number varies from plants with 8–19 flowers per inflorescence to those with 25–36 flowers. This variation falls within that of subsp. *australiense* and as these specimens do not differ in other respects from subsp. *australiense*, *J. aculeatum* is regarded as synonymous with it. Some Philippine plants have distinctly cordate leaves and were described as *J. truncatum*, but shape of the leaf base is variable and as they do not differ in other characters, this species is also reduced to synonomy with subsp. *australiense*.

In its few-flowered inforescences (generally with 3 but with up to 9 flowers), *J. funale* is clearly distinct from subsp. *australiense*. In addition, the leaves of *J. funale* are narrower (3.5 x 1.5–6.5 x 3 cm) compared with Philippines specimens of subsp. *australiense* (4.5 x 2.5–8.5 x 5.5 cm) and they generally possess domatia (those of subsp. *australiense* never have domatia). However, *J. funale* and Philippine plants of subsp. *australiense* are identical in flower characters except that the base of calyx of *J. funale* tapers into the pedicel compared with the rounded base of the cylindrical calyx of subsp. *australiense*. Because of the similarity in flower characters, *J. funale* is not kept separate at the specific level but, on account of its distinctive leaf characters, it is recognised at subspecific level.

subsp. ***australiense*** P.S. Green, Allertonia 3 (1984) 419.

Type: *N.H.Speck* 1924, Queensland (holotype K; isotypes BRI, CANB, MEL).

Distribution: Malesia—Philippines (widely distributed—Guimaras Is., Luzon, Mindoro, Mindanao and Palawan Is.), Sulawesi, Buru, Papua New Guinea (W. and Morobe Districts). Australia, Lord Howe Is. and Norfolk Is.

syn.: *J. volubile* Jacq., Pl. Hort. Schoenbr. 3 "1798" 39 & t. 321. Type: not traced cf. Green *op. cit.*

syn. nov.: *J. aculeatum* (Blanco) Walp. ex Hassk., Fl. 47 (1864) 50. *Mogorium aculeatum* Blanco., Fl. Filip. (1837) 9, ed. 2 (1845), ed. 3,1 (1877) 13, t. 445. Type: not traced.

syn. nov.: *J. truncatum* Merr., Philip. J. Sci. Bot. 3 (1908) 259. Type: *Merrill 5286* (1906), Sibutu, Sulu Archipel. (not traced).

subsp. ***funale*** (Decne.) Kiew, stat. nov.

syn. nov.: *J. funale* Decne., Nouv. Ann. Mus. Hist. Nat. Paris. Ser. 3. 3 (1834) 405, Herb. Timor (1835) 77.

Type: not located.
Distribution: Endemic to Malesia—E. Java, Madura, Sumbawa, Wetar, Flores, Timor, Seram and Moluccas.

45. smilacifolium Griff. ex C.B.Clarke in Hook.f., Fl. Brit. India. 3 (1882) 600.
Type: *Griffith* 3698, Malacca (holotype CAL; isotype K).
Distribution: Malesia—Peninsular Malaysia (rare and possibily extinct, Malacca and Negeri Sembilan) and Sumatra (rare). S. Thailand.
syn. nov.: *J. crassum* Merr., Papers Mich. Acad. Sci. 19 (1934) 186.
Type: *Yates* 1388 (lectotype MICH; isotype BM).

46. spectabile Ridl., Kew Bull. (1934) 122.
Type: *D.D. Wood* 1319 (holotype K).
Distribution: Endemic to Malesia—Borneo (Sarawak, Sabah and Kalimantan).

47. steenisii Kiew, Sandakania 4 (1994) 80.
Type: *J. Dransfield* 6938 (holotype K; isotypes BRUN, KEP).
Distribution: Endemic to Malesia—Borneo (Brunei).

subelongatum Blume = *J. aemulum*

suberosum Holtius = *J. crassifolium*

subpubescens Blume = *J. aemulum*

triandrum Fischer = *J. aemulum*

48. trinerve Vahl., Symb. Bot. 3 (1794) 2.
Type: not located.
Distribution: Endemic to Malesia—Java.

triphyllum Merr. = *J. didymum*

triplinervum Merr. = *J. crassifolium*

truncatum Merr. = *J. simplicifolium* subsp. *australiense*

49. turneri White, Proc. Linn. Soc. N. S. Wales 51 (1926) 297 & t. 17.
Type: *Turner, s.n.*, Rigo, Papua (lectotype K).
Distribution: Malesia—New Guinea (Morobe, Milne Bay, C. and Gulf Districts). Australia.
syn.: *J. pseudanastomosans* Lingelsh., Bot. Jahrb. 61 (1927) 20.
Type: *Schlechter* 16601 (A, BM, BRI, K, L, LAE).

volubile Jacq. = *J. simplicifrons* subsp. *australiense*

vulcanicum Blume = *J. aemulum*

50. waitzianum Blume, Mus. Bot. Lugd.-Bat. 1 (1850) 271.
Type: *Waitz, s.n.*, Herb. Lugd. Bat. 908.158...678 (lectotype L).
Distribution: Endemic to Malesia—Sumatra (known only from the type).

51. wrayi King & Gamble, J. As. Soc. Beng. Extra No. 74 (1905) 258.
Type: *Wray* 2297 (holotype CAL; isotype SING).
Distribution: Endemic to Malesia—Peninsular Malaysia.

var. ***wrayi***
syn.: var. *hispida* King & Gamble, *op. cit.*
Type: *King's Coll.* 5893 (holotype CAL; isotypes E, SING).

var. ***axillaris*** King & Gamble, *op. cit.*
Type: *Scortechini* 273 (holotype CAL).

52. zippelianum Blume, Mus. Bot. Lugd.-Bat. (1850) 279.
Type: *Zippelius, s.n.*, Herb. Lugd. Bat. 908.158...671 (lectotype L).
Distribution: Endemic to Malesia—Moluccas (Ambon, Halmahera and Seram), Tanimbar Is. and N. Buru.
syn. nov.: *amboinense* Merr., Philip. J. Sci. 11 (1916) 304.
Type: *Robinson 2032* Amboina (lectotype K).

Names doutbfully citing Malaya as their provenance

These names appear in the early volumes of Index Kewensis where localities were sometimes not precise. I have not come across any specimens from the Malesian region annotated with these names. Their occurrence in Malesia is therefore extremely doubtful.

J. finlaysonianum Wall. n. 7126; G. Don, Gen. Syst. 4 (1837) 60. Malaya.

J. lessertianum A. DC., Prodr. 8: 304. Singapore.

J. sylvestre Noronha, in Verh.,. Batav. Gen. 5 (1790) ed. I. Art IV: 19 (Quid?). Java.

J. tubiflorum Roxb., Hort. Beng. 80 (1814) *nomen*; Fl. Indica ed. Carey & Wall., 1 (1820) 96; Fl. Indica ed. Carey 1 (1832) 97. Malaya.

J. undulatum Willd. Sp. Pl. 1: 36. Malaya.

Excluded species

J. nitidum Skan, Kew Bull. (1898) 225 = *J. laurifolium* Roxb.

Type: *Bull of Chelsea* 1897, *s.n.* (lectotype K) erroneously recorded from the Admiralty Islands.

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